Mission Assurance in the New Business Environment
An Integrated Process

Quality Assurance
Systems Engineering
Program Management
Business Management

This brochure describes key elements of the new government approach for achieving better products in less time at lower cost.

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NASA Office of Safety & Mission Assuranc

Requirements Definition Mission Assurance & Systems Engineering Objectives

Tailored Requirements

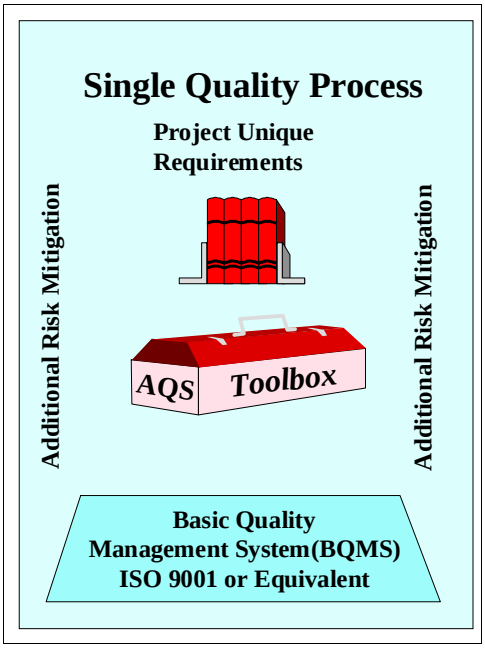
Contract Technical Specification: Section C of the Statement of Objectives (SOO) – project unique technical provisions necessary to achieve mission success (e.g. testing verification, clean room, ESD, rad hard etc.)

Tailored Objectives & Expectations

Advanced Quality System: Selected as appropriate, considering program complexity, budget, schedule and risk acceptance level (call out in RFP SOO, Section L&M)

Mandatory Requirements

Basic Quality System: ISO 9001: (call out in RFP SOO, Section L&M)



Acquisition Strategy

– **Choose** contract type appropriate to scope of effort and risk management considerations

– **Establish** substantial Quality element(s) in contract fee pool

– **Employ** creative "gainsharing" strategies to incentivize superior performance

Funding Profile

Shift resources into leading edge of funding profile sufficient to build qual *into the design*. Under-funded front-en programs lead to "business as usual" … incomplete systems engineering, a proliferation of engineering change proposals and cost overruns late in the program

Advanced Quality in Source Selection

How the Government plans to Select "Best Value" Contractors?

– **Require** ISO or equivalent.

– **State** Project unique objectives and expectation for risk mitigation beyond ISO 9001.

– **Evaluate** contractor-proposed *single quality process* including Advanced Quality capabilities and past performance during source selection.

– **Select** those contractors who have institutionalized Advanced Quality Systems and demonstrated capabilities to *manage risk, control variability* and *minimize waste*.

Integrated Product Teams

Use of integrated product development and work teams is considered an essential element in the new government business environment. Concurrent engineering, "systems thinking" and multi-functional membership on work groups are considered important factors in achieving program success.

Training

Multi-functional and *cross-functional training* is considered essential for success in the new business environment. Process and risk management disciplines have become critical skill areas along with systems engineering and an understanding of linkage between design, manufacturing and life-cycle product requirements.

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